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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,096	07/11/2006	David A. Fish	GB040020US1	5977

24737 7590 07/25/2011
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

SHERMAN, STEPHEN G

ART UNIT	PAPER NUMBER
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2629

NOTIFICATION DATE	DELIVERY MODE
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07/25/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

vera.kublanov@philips.com
debbie.henn@philips.com
marianne.fox@philips.com

Office Action Summary	Application No.	Applicant(s)	
	10/597,096	FISH, DAVID A.	
	Examiner	Art Unit	
	STEPHEN SHERMAN	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4 April 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-17 is/are pending in the application.
- 4a) Of the above claim(s) 9-13 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,14,16 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the petition decision dated 13 June 2011. Claims 1 and 3-17 are pending, of which claims 9-13 and 15 have been withdrawn from consideration.

Response to Arguments

2. Applicant's arguments, see pages 7-9 of the response, filed 4 April 2011, with respect to the rejection(s) of claim(s) 1-8, 14, 16 and 17 under 35 U.S.C. §102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Yamashita et al. (JP 2003-241711).

Information Disclosure Statement

3. The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion,

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unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

Claim Objections

4. Claims 5-8 and 14 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 5-8 and 14 have not been further treated on the merits.

5. Claim 3 is objected to because of the following informalities:

Claim 3 recites "a device a claimed in claim 1 or 2", however, claim 2 has been cancelled, And thus the claim should recite "a device a claimed in claim 1."

Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3, 4, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 2003/0142047) in view of Yamashita et al. (JP 2003-241711)

Regarding claim 1, Inoue et al. disclose an active matrix display device comprising an array of display pixels (Inoue, abstract, figure 2), each pixel comprising:

- a current-driven light emitting display element (Inoue, figure 5, item 56));
- a drive transistor (55) for driving a current through the display element (56) (Inoue, figure 5);
- a storage capacitor (54) for storing a voltage to be used for addressing the drive transistor (55) (Inoue, figure 5); and
- a light-dependent device (8) for effecting discharge of the storage capacitor in dependence on the light output of the light emitting display element (56) (Inoue, figure 5,

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paragraphs 72 and 74. Here Inoue teaches the resistance of the light dependent device changing based on the light output from the light emitting display element which affects the transistors and forms a discharge circuit for the capacitor.),

wherein power is provided to each pixel from a first power line (57) (Inoue, figure 5),

wherein one of the light dependent device and the storage capacitor is coupled to a second power supply line (551) (Inoue, figure 5), and

wherein the device further comprises means for varying the voltage on the second power supply line during a pixel illumination period (Figure 6 and paragraphs 69 and 71).

Inoue et al. fail to explicitly teach wherein the voltage on the second power supply line is ramped during a pixel illumination period.

Yamashita et al. disclose an active matrix display device comprising an array of display pixels (Drawing 1), where a power supply line is coupled to the storage capacitor (Drawing 20, power supply line RAMP is coupled to the storage capacitor through TR8'), and wherein the voltage on the second power supply line is ramped during a pixel illumination period (Drawings 20 and 21 and paragraphs [0045]-[0047]).

Therefore, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the teachings of Yamashita et al. in the active matrix display device taught by Inoue et al. in order to prevent variations from arising during the light emission period (See Yamashita et al., paragraph [0047]).

Regarding claim 3, Inoue et al. and Yamashita et al. disclose a device as claimed in claim 1, wherein the light dependent device (8) comprises a discharge photodiode (Inoue, figure 5, paragraph 69).

Regarding claim 4, Inoue et al. and Yamashita et al. disclose a device as claimed in any preceding claim, wherein each pixel further comprises an address transistor (53) connected between a data signal line and an input to the pixel (Inoue, figure 5).

Regarding claim 16, Inoue et al. disclose a method of driving an active matrix display device comprising an array of display pixels (Inoue, figure 2, abstract) each comprising a drive transistor (55) and a current-driven light emitting display element (56) (Inoue, figure 5), the method comprising, for each addressing of the pixel:

applying a drive voltage to an input of the pixel (Inoue, figure 5 and 6, paragraphs 69-77);

storing a voltage derived from the drive voltage on a discharge capacitor ((Inoue, figure 5 and 6, paragraphs 69-77);

driving the drive transistor (55) using a voltage on a storage capacitor (54) (Inoue, figure 5 and 6, paragraphs 69-77);

discharging the storage capacitor (54) using a light sensitive element, at a rate or time dependent on the light output of the display element (56) (Inoue, figure 5 and 6, paragraphs 69-77), and

varying a voltage on a terminal of the light sensitive element or the storage capacitor thereby to compensate for leakage currents of the light sensitive element (Inoue, figure 5 and 6, paragraphs 69-77).

Inoue et al. fail to explicitly teach the method further comprises wherein the voltage on the terminal of the light sensitive element or the storage capacitor is ramped during a pixel illumination period.

Yamashita et al. disclose an active matrix display device comprising an array of display pixels (Drawing 1), where a power supply line is coupled to the storage capacitor (Drawing 20, power supply line RAMP is coupled to the storage capacitor through TR8') and wherein the voltage on the terminal of the storage capacitor is ramped during a pixel illumination period (Drawings 20 and 21 and paragraphs [0045]-[0047]).

Therefore, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the teachings of Yamashita et al. in the method taught by Inoue et al. in order to prevent variations from arising during the light emission period (See Yamashita et al., paragraph [0047]).

Regarding claim 17, Inoue et al. and Yamashita et al. disclose a method as claimed in claim 16, wherein a first current is drawn by the drive transistor and a second current is drawn from said terminal of the light sensitive element or the storage capacitor, and wherein the method further comprises matching the first and second currents (Inoue, figure 5 and 6, paragraphs 69-77).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN SHERMAN whose telephone number is (571)272-2941. The examiner can normally be reached on M-F, 7:30 a.m. - 4:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen G Sherman/
Primary Examiner, Art Unit 2629

19 July 2011